

Dr Marvin Anas Hahn, Trinity College Dublin

Title: Tropical combinatorics and enumerative geometry

Abstract:

In this lecture we give an introduction to tropical geometry. Tropical geometry is a relatively new field of mathematics that can be seen as a combinatorial shadow of algebraic geometry. The basic idea is that we can encode geometric information in combinatorial data by tropicalisation. This philosophy has proved particularly useful in applications to enumeration geometry. We will give an overview of how tropical techniques can be used to study a 100-year-old enumeration problem, the Hurwitz numbers.